

AMENDMENTS TO THE CLAIMS:

Claims 1-52 are pending. Claims 45-52 are added herein. Claims 1, 4-10, 13-15, 17-25, 27, 29, 30, 32, 34, 35, 37, 39, 40, 42 and 44 are amended herein. This listing of claims will replace all prior versions, and listings of claims, in the application.

LISTING OF CLAIMS:

1. (Currently amended) An electrooptical converter, comprising sequentially located on the optical axis:
 - at least one optical lighter,
 - a transparent support or M transparent supports, each in the form of at least one plane-parallel plate or at least one prism of total internal reflection,
 - at least one line modulator,
 - at least one visualizer,
 - a perception device, and
 - at least one control device, whereineach line modulator comprises a transparent electroconducting layer applied to the transparent support, the electroconducting layer being covered with a transparent gel-like layer, and a system of i parallel ribbon control electrodes and ground electrodes, arranged in one plane on a second support corresponding to each of the line modulators and located with a gap above the transparent gel-like layer and electrically connected with the corresponding control device, wherein each transparent support together with the corresponding at least one modulator forms a line element; while the optical lighter consists of a lengthy light source and a lighting convertible lens sequentially located on the optical axis, and the visualizer includes a Fourier-objective and a visualizing diaphragm sequentially located on the optical axis; while the light source is pulse or continuous, and the frequency of light pulse recurrence is equal to the line frequency of the image; and
 - the ribbon control electrodes are electrically connected to the periodic structure of control teeth, and the ground electrodes are electrically connected to the periodic structure of ground teeth, for each line pixel the teeth together with the corresponding electrodes look like two conducting combs isolated from each other, while the combs' teeth are located in parallel to the lengthy light source, while the location period of the pairs of the control teeth and ground teeth λ_{teeth} is calculated from the relation: $\lambda_{\text{teeth}} \leq \sqrt{2} \lambda_{\text{light}} / \alpha_{\text{div}}$, wherein λ_{light} is a wavelength of the lengthy light source and α_{div} (in radians) is a divergence of the radiation of

the light source in a direction perpendicular to the combs' teeth, ~~and the gel-like layer is made on the base of polyvinylsiloxane $(\text{CH}_2=\text{CH})_3\text{SiO}[(\text{CH}_3)_2\text{SiO}]_m\text{Si}(\text{CH}=\text{CH}_2)_3$ with molecular mass of 10000-16000 and viscosity of 800-1000 centistokes, oligohydridesiloxane $(\text{CH}_3)_3\text{SiO}[(\text{CH}_3)_2\text{SiO}][\text{CH}_3\text{SiO}(\text{H})]\text{Si}(\text{CH}_3)_3$ with hydride groups content of 10-15% and viscosity of 50-100 santistokes.~~

2. (Original) The device according to claim 1, wherein at least one cylindrical objective which generatrix is parallel to the combs' teeth is inserted into the lighting convertible lens.

3. (Original) The device according to claim 1, wherein the visualizer contains at least one cylindrical objective which generatrix is parallel to the combs' teeth.

4. (Currently amended) The device according to claim 1, wherein the perception device contains a projection lens, a system of mirrors, a means for vertical scanning of a line, a screen, and a photosensor of a scanner, while ~~the~~ a toroidal-cylindrical objective is inserted into the projection lens.

5. (Currently amended) The device according to claim 1, wherein the control device consists of the synchronization device which output is connected to ~~the~~ a block of sources of voltage signals, and its input is connected to ~~the~~ a photosensor of ~~the~~ a scanner; the base voltage source which is located between the transparent electroconducting layer and the ground electrodes; the block of sources of voltage signals connected to *i* inputs of the control electrodes of the line modulator; a bias voltage source connected via electric source of corrections of the time front of relief formation by one output to the like outputs of the block of sources of voltage signals, and by the other output to the ground electrodes; while the synchronization device has two additional outputs, one of which is connected to the light source, and the other to the means of scanning of the line, and also has an additional input from the block of sources of voltage signals, while the electric source of corrections of the time front of relief formation is inserted sequentially with the bias voltage source and connected to the synchronization device, which at the moment of powering up the pulse signal applies an additional pulsing bias voltage of the time determined form, and a commutator switching polarity of a signal on the ribbon control and ground electrodes according to the given time-space rule is connected to the block of sources of voltage signals and to the synchronization device.

6. (Currently amended) The device according to claim 1, wherein the system of the parallel ribbon control and ground electrodes is applied to the second support and is covered with a thin dielectric layer of a uniform thickness to which the combs' control teeth and ground teeth parallel to the lengthy light source are applied perpendicularly to the ribbon control and ground electrodes, and the control teeth are electrically connected by the contacts with the corresponding ribbon control electrodes, and the ground teeth are electrically connected by the contacts with the corresponding ribbon control electrodes, wherein the butt-ends of the teeth of one pixel are located opposite to butt-ends of the teeth of the other pixel with a gap, and the teeth are covered with a thin protective dielectric layer with adjustable electric parameters.

7. (Currently amended) The device according to claim 1, wherein the system of the parallel ribbon control and ground electrodes is applied to the second support and is covered with a thin dielectric layer of a uniform thickness to which the combs' ground teeth are applied, the ground teeth are electrically connected by the contacts with the corresponding ribbon ground electrodes and are covered with ~~the~~ a second thin protective dielectric layer of a uniform thickness, to which the combs' control teeth are applied, the control teeth are electrically connected by the contacts with the corresponding ribbon control electrodes, while in each pixel the butt-ends of the teeth are located opposite to spaces between the butt-ends of the neighbor pixel.

8. (Currently amended) The device according to claim 1, wherein the perception device contains a projection lens, a system of mirrors, and a means for vertical scanning of a line; and

the device contains ~~the~~ red, green and blue optical lighters and three control devices, corresponding to the red, green and blue optical lighters and connected electrically by the outputs with ~~the~~ a color commutator connected by one output to each line modulator, by three outputs to three optical lighters sequentially switched on by it, and by fifth output to the means of scanning,

the transparent support ~~is~~ is made in the form of at least one triangular prism of total internal reflection,

each line element contains three line modulators to be switched on simultaneously, each modulator has the period of order of the pairs of control teeth and ground teeth λ_{teeth} corresponding to each of the three colors,

three optical lighters are arranged in parallel to each other, and the light flux of the corresponding color falls perpendicularly to the corresponding line modulator, while the light flux with the greater wavelength is directed to the line modulator, located a greater distance from ~~the~~ a Fourier-objective, while ~~the~~ an opaque visualizing diaphragm blocks or transmits radiation of the zero order of all three colors.

9. (Currently amended) The device according to claim 1, wherein the device contains red, green and blue optical lighters and three control devices, corresponding to the red, green and blue optical lighters and connected electrically by the outputs with ~~the~~ a color commutator connected by one output to each line modulator, by three outputs to three optical lighters sequentially switched on by it, and by the fifth output to the means of scanning, each line element contains three line modulators with three various spatial periods of order of the pairs of control teeth and ground teeth $\lambda_R, \lambda_G, \lambda_B$ corresponding to the waves of light of the red, the green and the blue optical lighters, while all three line modulators switched on sequentially in time are located on the optical axis in such a way that the line modulator with the greater wavelength is located a greater distance from ~~the~~ a Fourier-objective.

10. (Currently amended) The device according to claim 1, wherein each transparent support is made in the form of N triangular prisms with a rectangular triangle as the basis sequentially optically conjugated by the equal leg lateral sides, ~~while~~ wherein the line modulators are applied to all or to some of the hypotenuse lateral sides; while one leg lateral side of the first prism has a free surface directed to at least one optical lighter, and one leg lateral side of the last prism has a free surface directed to at least one visualizer, while these sides are located perpendicularly to the optical axis, and the light from the optical lighter falls on all hypotenuse sides at an angle bigger than the angle of total internal reflection, and the line modulators have equal or different spatial frequencies of the combs' teeth.

11. (Original) The device according to claim 10, wherein the device comprises M line elements, arranged in the form of a linear matrix, the transparent support of each of the line elements consisting of an even number of prisms, wherein the first and the last free leg lateral sides of the line elements located in parallel planes or in one plane are directed correspondingly to the matrices of M monochrome, three-colored or multi-colored optical lighters and to the matrix of M monochrome, three-colored or multi-colored visualizers correspondingly.

12. (Original) The device according to claim 11, wherein the perception device is made in the form of a transparent or mat, or photosensitive, or thermo-sensitive material and is arranged after the matrix of visualizers on the optical axis.

13. (Currently amended) The device according to claim 10, wherein the lengthy light source is designed in the form of an optical fiber or a matrix of optical fibers, by one side connected to a monochrome or polychrome laser light source of information and optically conjugated with the prism which is met first on the way of the light transmission by the other side, while each optical fiber is optically conjugated to one or several pixels of each line modulator, and the prism last met on the way of light transmission is conjugated to one visualizer or a matrix of visualizers, wherein ~~the~~ an opaque visualizing diaphragm contains one hole or a matrix of holes with an aperture transmitting the zero order of light diffraction, while ~~the~~ a objective is located on the optical axis after that hole or a matrix of holes at a distance less than focal one, and the objective focuses light on the output optical fiber connected on the other side to the perception device of the light information, and the signal voltage is applied to all line modulators synchronously, or in a three-phase time mode, or in a multiphase time mode, wherein said voltage is sufficient for creation of ~~the~~ an optimum depth of the phase modulation equal to 4.82 radian, and the perception device is electrically connected to the optical lighter.

14. (Currently amended) The device according to claim 10, wherein the lengthy light source is designed in the form of an optical fiber or a matrix of optical fibers, by one side connected to a monochrome or polychrome laser light source of information and optically conjugated with the prism which is met first on the way of the light transmission by the other side, while each optical fiber has an optical contact with one or several pixels of each line modulator, and the prism last met on the way of light transmission is conjugated to one visualizer or a matrix of visualizers, wherein ~~the~~ a opaque visualizing diaphragm contains one hole or a matrix of holes with an aperture transmitting radiation of first and/or another higher order of light diffraction, controlled by pixel electrodes, while the visualizer for each line modulator is designed in such a manner that the objective is located against a hole or a matrix of holes, and the objective focuses light on the output optical fiber connected on the other side to the perception device of the light information, and the signal voltage is applied to all line modulators synchronously, or in a three-phase time mode, or in a multiphase time mode sufficient for creation of ~~the~~ an optimum depth of the phase modulation equal to 4.82

radian, and the registration device of the light information is electrically connected to the optical lighter.

15. (Currently amended) The device according to claim 10, wherein the optical lighter is arranged at an angle less than 90 degrees and the perception device is arranged at an angle of 90 degrees to the leg lateral side of the prism of the line element first met on the way of the light transmission, and the part of ~~the~~ a visualizing diaphragm blocking light of zero order of diffraction is covered with a mirror and located in parallel to the leg lateral sides of the prism of the line element last met on the way of light transmission, while ~~the~~ a second perception device or ~~the~~ a light-absorbing device is located at the side of the visualizing diaphragm that is not covered with the mirror.

16. (Original) The device according to claim 10, wherein the combs' teeth of one or several line modulators in the line element are covered with a continuous thin dielectric mirror reflecting light of the corresponding wavelength, and one or all hypotenuse sides of prisms that do not contain line modulators (free sides) are covered with the mirror.

17. (Currently amended) The device according to ~~claims~~ claim 15 ~~or 16~~, wherein the last free leg lateral side of the prism of the line modulator is covered with the mirror.

18. (Currently amended) An electrooptical converter, comprising:
red, green and blue optical lighters,
~~the~~ a transparent support in the form of at least one plane-parallel plate or at least one prism of total internal reflection,
one line modulator,
at least one visualizer,
~~the~~ a perception device,

three control devices corresponding to the red, green and blue optical lighters, wherein the control devices electrically connected by the outputs to the color commutator connected by one output to the line modulator, and by three outputs to three optical lighters sequentially switched on by it, and by the fifth output to the means of scanning, while the line modulator comprises the transparent electroconducting layer applied to the transparent support, the electroconducting layer being covered with ~~the~~ a transparent gel-like layer, and ~~the~~ a system of i parallel ribbon control electrodes and ground electrodes, applied to ~~the~~ a second support in one plane and located with a gap above the transparent gel-like layer, wherein the line modulator together with the transparent support forms ~~the~~ a line element and each optical

lighter consists of the lengthy light source and the lighting convertible lens sequentially located on the optical axis, while the light source is pulse or continuous, and ~~the a~~ frequency of light pulse recurrence is equal to the line frequency of the image;

the visualizer includes ~~the a~~ Fourier-objective and ~~the a~~ visualizing diaphragm sequentially located on the optical axis; while ~~the a~~ collinear flux of radiation of all three colors falls perpendicularly and sequentially in time onto the line element, and the ribbon control electrodes are electrically connected to the periodic structure of ~~the~~ control teeth, and the ground electrodes are electrically connected to the periodic structure of ~~the~~ ground teeth, for each line pixel the teeth together with the electrodes look like two conducting combs isolated from each other, while the combs' teeth are located in parallel to the lengthy light source, and ~~the a~~ period of order for the pairs of control teeth and ground teeth λ_{teeth} is determined according to the relation: $\lambda_{\text{teeth}} \leq \sqrt{2} \lambda_{\text{light min}} / \alpha_{\text{div max}}$, where $\alpha_{\text{div max}}$ is the greatest divergence of radiation among red, green and blue colors and $\lambda_{\text{light min}}$ is the minimum length of the light wave, while the size of ~~the an~~ opaque visualizing diaphragm is determined according to the condition of overlapping of zero orders of all three colors, and the voltage on the control electrodes of the line modulator forms the necessary depth of the relief for each color, ~~and the gel-like layer is made on the base of polyvinylsiloxane $(\text{CH}_2=\text{CH})_3\text{SiO}[(\text{CH}_3)_2\text{SiO}]_m\text{Si}(\text{CH}=\text{CH}_2)_2$ with molecular mass of 10000-16000 and viscosity of 800-1000 centistokes, oligohydridesiloxane $(\text{CH}_3)_3\text{SiO}[(\text{CH}_3)_2\text{SiO}][\text{CH}_3\text{SiO}(\text{H})]\text{Si}(\text{CH}_3)_2$ with hydride groups content of 10-15% and viscosity of 50-100 santistokes.~~

19. (Currently amended) An electrooptical converter₁ comprising:
- at least one optical lighter,
 - one transparent support or M transparent supports, each in the form of at least one plane-parallel plate,
 - at least one line modulator,
 - at least one visualizer,
 - ~~the a~~ perception device, and further comprises
 - at least one control device, wherein:
 - each line modulator comprises ~~the a~~ transparent electroconducting layer applied to the corresponding transparent support, the electroconducting layer being covered with ~~the a~~ transparent gel-like layer, and ~~the a~~ system of i parallel ribbon control electrodes and ground

electrodes, applied in one plane to the second support corresponding to each line modulator and located with ~~the a~~ gap above the transparent gel-like layer and electrically connected with the control device, wherein each transparent support together with corresponding at least one modulator forms ~~the a~~ line element; ~~while~~

the optical lighter consists of the lengthy light source and ~~the a~~ lighting convertible lens sequentially located on the optical axis, and the visualizer includes ~~the a~~ Fourier-objective and ~~the a~~ visualizing diaphragm sequentially located on the optical axis;

the light source is pulse or continuous, and the frequency of light pulse recurrence is equal to ~~the a~~ line frequency of ~~the an~~ image;

the optical lighter is arranged in such a way that the radiation from it is directed to the plane-parallel plate, to the transparent electroconducting layer, to the transparent gel-like layer, to the air gap at an angle less than 90 degrees, while the ribbon control electrodes are electrically connected to the periodic structure of ~~the~~ control teeth, and the ground electrodes are electrically connected to the periodic structure of ~~the~~ ground teeth, wherein for each line pixel the teeth together with the electrodes look like two conducting combs isolated from each other, while the combs' teeth are located in parallel to the lengthy light source and are covered with a continuous thin dielectric mirror reflecting light of the corresponding wavelength, and the period of order for the pairs of control teeth and ground teeth λ_{teeth} is determined according to the relation: $\lambda_{teeth} \leq \sqrt{2} \lambda_{light \min} / \alpha_{div \max}$, where λ_{light} is a wavelength of the lengthy light source and α_{div} (in radians) is a divergence of the radiation of the light source in a direction perpendicular to the combs' teeth, ~~and the gel-like layer is made on the base of polyvinylsiloxane $(CH_2=CH)_3SiO[(CH_3)_2SiO]_mSi(CH=CH_2)_3$ with molecular mass of 10000-16000 and viscosity of 800-1000 centistokes, oligohydridesiloxane $(CH_3)_3SiO[(CH_3)_2SiO][CH_3SiO(H)]Si(CH_3)_3$ with hydride groups content of 10-15% and viscosity of 50-100 santistokes.~~

20. (Currently amended) ~~The A~~ gel-like layer for ~~the an~~ electrooptical converter, wherein it is a product of the reaction of the components of the gel-like composition which includes comprising:

100 mass parts polyvinylsiloxane $(CH_2=CH)_3SiO[(CH_3)_2SiO]_mSi(CH=CH_2)_3$ with ~~the a~~ molecular mass of 10000-16000 and viscosity of 800-1000 centistokes; [,]

15-25 mass parts oligohydridesiloxane $(\text{CH}_3)_3\text{SiO}\{[(\text{CH}_3)_2\text{SiO}][\text{CH}_3\text{SiO}(\text{H})]\}\text{Si}(\text{CH}_3)_3$ as a cross-linking agent, with hydride groups content of 10-15 % and viscosity of 50-100 centistokes; [[,]]

150-300 mass parts polymethylsiloxane fluid $(\text{CH}_3)_3\text{SiO}[(\text{CH}_3)_2\text{SiO}]\text{Si}(\text{CH}_3)_3$ as a plasticizer with viscosity of 5-20 centistokes; and [[,]]

0.3-2 mass parts 0.1% solution of chloroplatinic acid in an organic solvent or its complex with tetravinylsilane as a catalyst of hardening, ~~in the following proportion (mass parts): polyvinylsiloxane—100, oligohydridesiloxane—15-25, polymethylsiloxane fluid—150-300, 0.1% solution of chloroplatinic acid in the organic solvent or its complex with tetravinylsilane—0.3-2.~~

21. (Currently amended) ~~The~~ A method of preparation of the gel-like layer for the electrooptical converter, comprising:

mixing ~~of~~ 100 mass parts of polyvinylsiloxane $(\text{CH}_2=\text{CH})_3\text{SiO}[(\text{CH}_3)_2\text{SiO}]_m\text{Si}(\text{CH}=\text{CH}_2)_3$ with a molecular mass of 10000-16000 and viscosity of 800-1000 centistokes with 15-25 mass parts of oligohydridesiloxane $(\text{CH}_3)_3\text{SiO}\{[(\text{CH}_3)_2\text{SiO}][\text{CH}_3\text{SiO}(\text{H})]\}\text{Si}(\text{CH}_3)_3$ with hydride groups content of 10-15% and viscosity of 50-100 centistokes; and

adding 150-300 mass parts of polymethylsiloxane fluid $(\text{CH}_3)_3\text{SiO}[(\text{CH}_3)_2\text{SiO}]\text{Si}(\text{CH}_3)_3$ with viscosity of 5-20 centistokes after the end of mixing, then after ~~the repeated~~ repeating mixing, 0.3-2 mass parts of 0.1% solution of chloroplatinic acid in an organic solvent or its complex with tetravinylsilane is added,

mixing the resulting composition ~~is mixed~~ and applying ~~applied~~ the resulting composition to the electroconducting transparent layer as a layer of a uniform thickness ~~after the end of mixing.~~

22. (Currently amended) The method according to claim 21, wherein the composition is applied to the electroconducting transparent layer on the ~~expiry~~ expiration of 1-20 minutes after the end of mixing.

23. (Currently amended) The method according to claim 21, wherein the resulting composition is applied to the electroconducting transparent layer as a layer of a uniform thickness after the end of mixing in the following way: by forming, cross-linking and cooling of ~~the~~ a first layer, then by applying ~~of~~ one or more additional gel layers on the first or ~~the~~ a previous cross-linked and cooled gel layer.

24. (Currently amended) ~~The~~ A method of preparation of the gel-like layer for the electrooptical converter, comprising:

mixing ~~of~~ 100 mass parts of polyvinylsiloxane $(\text{CH}_2=\text{CH})_3\text{SiO}[(\text{CH}_3)_2\text{SiO}]_m\text{Si}(\text{CH}=\text{CH}_2)_3$ with molecular mass of 10000-16000 and viscosity of 800-1000 centistokes with 15-25 mass parts of oligohydridesiloxane $(\text{CH}_3)_3\text{SiO}\{[(\text{CH}_3)_2\text{SiO}][\text{CH}_3\text{SiO}(\text{H})]\}\text{Si}(\text{CH}_3)_3$ with hydride groups content of 10-15% and viscosity of 50-100 centistokes,

adding ~~of~~ 150-300 mass parts of polymethylsiloxane fluid $(\text{CH}_3)_3\text{SiO}[(\text{CH}_3)_2\text{SiO}]\text{Si}(\text{CH}_3)_3$ with a viscosity of 5-20 centistokes after the end of mixing,

mixing and adding ~~after the repeated mixing~~ 0.3-2 mass parts of 0.1% solution of chloroplatinic acid in an organic solvent or its complex with tetravinylsilane ~~is added~~, then

mixing the resulting composition ~~is mixed~~ and applied to ~~the~~ an electroconducting transparent layer as a layer of a uniform thickness after the end of mixing,

~~after that~~ covering the obtained layer ~~is covered~~ with an additional plate with an optical flat surface, and the thickness of the transparent gel-like layer is flattened by ~~the~~ main spacers, arranged between the transparent electroconducting layer and the additional plate,

placing ~~then~~ the obtained construction ~~is placed~~ into an oven and kept at a temperature of 70-90°C for about 2-4 hours,

separating ~~then~~ the additional plate ~~is separated~~, and

covering the gel-like layer ~~is covered~~ with ~~the~~ a second support with the control electrodes and ~~the~~ ground electrodes applied to it, wherein the electrodes ~~being~~ are covered with ~~the~~ a thin protective dielectric layer, while ~~the~~ a gap is assigned by ~~the~~ additional spacers, which are bigger than the main ~~ones~~ spacers.

25. (Currently amended) The method according to claim 24, wherein the resulting composition is applied to the electroconducting transparent layer as a layer of a uniform thickness after the end of mixing in the following way: by forming, cross-linking and cooling of ~~the~~ a first layer, then by applying ~~of~~ one or more ~~some of~~ additional gel layers on the first or ~~the~~ a previous cross-linked and cooled gel layer.

26. (Original) The method according to claim 24, wherein the additional plate is covered with an antiadhesive layer.

27. (Currently amended) The method according to claim 26, wherein a surface-active substance, ~~such as sulfanol-π,~~ is used as the antiadhesive layer.

28. (Original) The method according to claim 24, wherein the additional plate is treated with plasma or another clearing irradiation.

29. (Currently amended) ~~The~~ A method of preparation of the gel-like layer for the electrooptical converter, comprising:

~~mixing of~~ 100 mass parts of polyvinylsiloxane
(CH₂=CH)₃SiO[(CH₃)₂SiO]_mSi(CH=CH₂)₃ with molecular mass of 10000-16000 and viscosity of 800-1000 centistokes with 15-25 mass parts of oligohydridesiloxane
(CH₃)₃SiO{[(CH₃)₂SiO][CH₃SiO(H)]}Si(CH₃)₃ with hydride groups content of 10-15% and viscosity of 50-100 centistokes,

~~adding of~~ 150-300 mass parts of polymethylsiloxane fluid
(CH₃)₃SiO[(CH₃)₂SiO]Si(CH₃)₃ with viscosity of 5-20 centistokes after the end of mixing,

~~mixing and adding after the repeated mixing~~ 0.3-2 mass parts of 0.1% solution of chloroplatinic acid in an organic solvent or its complex with tetravinylsilane ~~is added~~,

~~mixing then~~ the resulting composition ~~is mixed and applied~~ applying the composition
to ~~the~~ an electroconducting transparent layer as a layer of a uniform thickness after the end of mixing,

~~covering after that~~ the obtained layer ~~is covered~~ with an additional plate with an optical flat surface, ~~and wherein~~ the thickness of the transparent gel-like layer is flattened by ~~the~~ main spacers, arranged between the transparent electroconducting layer and the additional plate,

~~placing then~~ the obtained construction ~~is placed~~ into an oven and kept at a temperature of 70-90°C for about 1-2 hours,

~~cooling the construction then it is cooled down~~ to ambient temperature,

~~separating after that~~ the additional plate ~~is separated~~,

~~placing then~~ the gel-like layer located on the transparent electroconducting layer ~~is again placed~~ into the oven and kept at the temperature of 70-90°C up to complete cross-linking of the gel for about 1-3 hours.

30. (Currently amended) The method according to claim 29, wherein the resulting composition is applied to the electroconducting transparent layer as a layer of a uniform thickness after the end of mixing in the following way: by forming, cross-linking and cooling of ~~the~~ a first layer, then by applying ~~of one or more some of~~ additional gel layers on the first or ~~the~~ a previous cross-linked and cooled gel layer.

31. (Original) The method according to claim 29, wherein the additional plate is covered with an antiadhesive layer.

32. (Currently amended) The method according to claim 31, wherein a surface-active substance, ~~such as sulfanol- π~~ , is used as the antiadhesive layer.

33. (Original) The method according to claim 29, wherein the additional plate is treated with plasma or another clearing irradiation.

34. (Original) ~~The~~ A method of preparation of ~~the~~ a gel-like layer for ~~the~~ an electrooptical converter, comprising:

mixing of 100 mass parts of polyvinylsiloxane
(CH₂=CH)₃SiO[(CH₃)₂SiO]_mSi(CH=CH₂)₃ with molecular mass of 10000-16000 and viscosity of 800-1000 centistokes with 15-25 mass parts of oligohydridesiloxane
(CH₃)₃SiO{[(CH₃)₂SiO][CH₃SiO(H)]}Si(CH₃)₃ with hydride groups content of 10-15% and viscosity of 50-100 centistokes,

adding of 150-300 mass parts of polymethylsiloxane fluid
(CH₃)₃SiO[(CH₃)₂SiO]Si(CH₃)₃ with viscosity of 5-20 centistokes after the end of mixing,
mixing and adding after the repeated mixing 0.3-2 mass parts of 0.1% solution of chloroplatinic acid in an organic solvent or its complex with tetravinylsilane ~~is added~~,
mixing then the resulting composition ~~is mixed~~ and applied applying the composition to ~~the~~ an electroconducting transparent layer as a layer of a uniform thickness after the end of mixing,

covering after that the obtained layer ~~is covered~~ with an additional plate with an optical flat surface, ~~and~~ wherein the thickness of the transparent gel-like layer is flattened by ~~the~~ main spacers, arranged between the transparent electroconducting layer and the additional plate,

placing then the obtained construction ~~is placed~~ into an oven and kept at a temperature of 70-90°C for about 2-4 hours,

separating after which the additional plate ~~is separated~~,

covering and the gel-like layer ~~is covered~~ with ~~the~~ a second support with ~~the~~ control electrodes and ~~the~~ ground electrodes applied to it, wherein the electrodes ~~being~~ are covered with ~~the~~ a thin protective dielectric layer, while ~~the~~ a gap is assigned by the main spacers after complete cross-linking, contraction and cooling of the gel down to ambient temperature.

35. (Currently amended) The method according to claim 34, wherein the resulting composition is applied to the electroconducting transparent layer as a layer of a uniform thickness after the end of mixing in the following way: by forming, cross-linking and cooling of ~~the a~~ a first layer, then by applying of one or more ~~some of~~ additional gel layers on the first or ~~the a~~ a previous cross-linked and cooled gel layer.

36. (Original) The method according to claim 34, wherein the additional plate is covered with an antiadhesive layer.

37. (Currently amended) The method according to claim 36, wherein a surface-active substance ~~, such as sulfanol-7,~~ is used as the antiadhesive layer.

38. (Original) The method according to claim 34, wherein the additional plate is treated with plasma or another clearing irradiation.

39. (Currently amended) ~~The A~~ method of preparation of ~~the a~~ a gel-like layer for ~~the an~~ an electrooptical converter, comprising:

mixing ~~of~~ 100 mass parts of polyvinylsiloxane
 $(\text{CH}_2=\text{CH})_3\text{SiO}[(\text{CH}_3)_2\text{SiO}]_m\text{Si}(\text{CH}=\text{CH}_2)_3$ with molecular mass of 10000-16000 and viscosity of 800-1000 centistokes with 15-25 mass parts of oligohydridesiloxane
 $(\text{CH}_3)_3\text{SiO}\{[(\text{CH}_3)_2\text{SiO}][\text{CH}_3\text{SiO}(\text{H})]\}\text{Si}(\text{CH}_3)_3$ with hydride groups content of 10-15% and viscosity of 50-100 centistokes,

adding ~~of~~ 150-300 mass parts of polymethylsiloxane fluid
 $(\text{CH}_3)_3\text{SiO}[(\text{CH}_3)_2\text{SiO}]\text{Si}(\text{CH}_3)_3$ with viscosity of 5-20 centistokes after the end of mixing,

mixing and adding after the repeated mixing 0.3-2 mass parts of 0.1% solution of chloroplatinic acid in an organic solvent or its complex with tetravinylsilane ~~is added,~~

mixing then the resulting composition ~~is mixed and applied~~ applying the composition to ~~the an~~ an electroconducting transparent layer as a layer of a uniform thickness after the end of mixing,

covering after that the obtained layer ~~is covered~~ with an additional plate with an optical flat surface, wherein ~~and~~ the thickness of the transparent gel-like layer is flattened by ~~the~~ main spacers, arranged between the transparent electroconducting layer and the additional plate,

placing then the obtained construction ~~is placed~~ into an oven and kept at a temperature of 70-90°C for about 1-2 hours,

cooling the construction ~~then it is cooled down~~ to ambient temperature,

~~separating after which~~ the additional plate ~~is separated~~,
placing ~~then~~ the gel-like layer located on the transparent electroconducting layer ~~is~~
~~again placed~~ into the oven and kept at the temperature of 70-90°C up to complete cross-
linking of the gel for about 1-3 hours, ~~while~~ wherein the gap is assigned by the main spacers
after complete cross-linking, contraction and cooling of the gel down to ambient temperature.

40. (Currently amended) The method according to claim 39, wherein the resulting composition is applied to the electroconducting transparent layer as a layer of a uniform thickness after the end of mixing in the following way: by forming, cross-linking and cooling of ~~the a~~ first layer, then by applying ~~of~~ one or more ~~some of~~ additional gel layers on the first or ~~the a~~ previous cross-linked and cooled gel layer.

41. (Original) The method according to claim 39, wherein the additional plate is covered with an antiadhesive layer.

42. (Currently amended) The method according to claim 41, wherein a surface-active substance ~~;~~ ~~such as sulfanol-π~~, is used as the antiadhesive layer.

43. (Original) The method according to claim 39, wherein the additional plate is treated with plasma or another clearing irradiation.

44. (Currently amended) ~~The A composition for the realization of the method of preparation of the a gel-like layer for the an electrooptical converters includes converter,~~
comprising:

polyvinylsiloxane $(CH_2=CH)_3SiO[(CH_3)_2SiO]_mSi(CH=CH_2)_3$ with molecular mass of 10000-16000 and viscosity of 800-1000 centistokes; ~~centistokes~~,

oligohydridesiloxane $(CH_3)_3SiO\{[(CH_3)_2SiO][CH_3SiO(H)]\}Si(CH_3)_3$ as a cross-linking agent with hydride groups content of 10-15% and viscosity of 50-100 centistokes; [[,]]

polymethylsiloxane fluid $(CH_3)_3SiO[(CH_3)_2SiO]Si(CH_3)_3$ as a plasticizer with viscosity of 5-20 centistokes; and [[,]]

0.1% solution of chloroplatinic acid in an organic solvent or its complex with tetravinylsilane as a catalyst of ~~hardening~~ hardening, having with the following ratio of the mixture's components (mass parts): polyvinylsiloxane – 100, oligohydridesiloxane – 15-25, polymethylsiloxane fluid – 150-300, and 0.1% solution of chloroplatinic acid in the organic solvent or its complex with tetravinylsilane – 0.3-2.

45. (New) The electrooptical converter of claim 1, wherein the gel-like layer comprises polyvinylsiloxane $(CH_2=CH)_3SiO[(CH_3)_2SiO]_mSi(CH=CH_2)_3$ with molecular mass

of 10000-16000 and viscosity of 800-1000 centistokes and oligohydridesiloxane $(\text{CH}_3)_3\text{SiO}\{[(\text{CH}_3)_2\text{SiO}][\text{CH}_3\text{SiO}(\text{H})]\}\text{Si}(\text{CH}_3)_3$ with hydride groups content of 10-15% and viscosity of 50-100 centistokes.

46. (New) The electrooptical converter of claim 18, wherein the gel-like layer comprises polyvinylsiloxane $(\text{CH}_2=\text{CH})_3\text{SiO}[(\text{CH}_3)_2\text{SiO}]_m\text{Si}(\text{CH}=\text{CH}_2)_3$ with molecular mass of 10000-16000 and viscosity of 800-1000 centistokes and oligohydridesiloxane $(\text{CH}_3)_3\text{SiO}\{[(\text{CH}_3)_2\text{SiO}][\text{CH}_3\text{SiO}(\text{H})]\}\text{Si}(\text{CH}_3)_3$ with hydride groups content of 10-15% and viscosity of 50-100 centistokes.

47. (New) The electrooptical converter of claim 19, wherein the gel-like layer comprises polyvinylsiloxane $(\text{CH}_2=\text{CH})_3\text{SiO}[(\text{CH}_3)_2\text{SiO}]_m\text{Si}(\text{CH}=\text{CH}_2)_3$ with molecular mass of 10000-16000 and viscosity of 800-1000 centistokes and oligohydridesiloxane $(\text{CH}_3)_3\text{SiO}\{[(\text{CH}_3)_2\text{SiO}][\text{CH}_3\text{SiO}(\text{H})]\}\text{Si}(\text{CH}_3)_3$ with hydride groups content of 10-15% and viscosity of 50-100 centistokes.

48. (New) The method according to claim 27, wherein the surface-active substance is sulfanol- π .

49. (New) The method according to claim 32, wherein the surface-active substance is sulfanol- π .

50. (New) The method according to claim 37, wherein the surface-active substance is sulfanol- π .

51. (New) The method according to claim 42, wherein the surface-active substance is sulfanol- π .

52. (New) The device according to claim 16, wherein the last free leg lateral side of the prism of the line modulator is covered with the mirror.